

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 16 STATE HOUSE STATION AUGUSTA, MAINE 04333-0016

Bruce A. Van Note

June 18, 2019

Attention: Prospective Proposers for Hampden Bundle Bridge Design-Build Project

Subject: Hampden Bundle Bridge Design-Build Project (MaineDOT WINs 21673.00/.10, 21728.00/.10, 21729.00/.10, 21730.00/.10, & 23224.00) – Responses to Questions Received on the Draft Request for Proposals (Draft RFP)

- **1.** Page 2-4 Section 1.4.2: Please verify that an ATC cannot be used for 1 lane of traffic in each direction for reduced construction seasons?
 - A. Alternate methods for maintaining traffic during construction can be proposed through the ATC submittal process. If an allowable ATC proposal is submitted that simply requests approval for something that is not considered equal or better to what is required in the Final RFP, it will not be approved. However, if such a request is accompanied with sufficient identification of other resulting benefits to MaineDOT, the travelling public, the permitting process, etc. that could offset the requested change as a whole, the ATC will be given due consideration.
- **2.** Page 2-26 Section 7.5.10: "In-water activities that disturb the clay substrate shall be completed inside of a sealed cofferdam." Please clarify "sealed".
 - **A.** The intent is that the cofferdam will contain sediments and turbid water generated by disturbance of clay substrate. A turbidity curtain does not meet this requirement.
- **3.** Page 2-26 Section 7.5.12: "Abutment and pier demolition shall occur inside of a dewatered cofferdam or outside of the water." Is dewatering necessary?
 - A. Abutment demolition shall occur inside of a dewatered cofferdam. Dewatering is necessary. Pier demolition shall occur within containment, but dewatering is not required.
- **4.** Page 2-26 Section 7.5.18 and 7.5.19: Item 19 allows filling a total for 22 feet into the stream for the temporary condition, which potentially constricts the stream channel. Item 18 states that temporary fill shall not "increase flooding". Can you please clarify "flooding"? Also, please verify that any fill within the stream must be riprap, unless within a cofferdam (7.5.11).

- A. The following statement will be added to the end of Section 7.5, item 19, "The Design-Builder is responsible for determining and designing for any risk to the traveling public associated with a reduced hydraulic opening at any of the stream crossings due to temporary works." Section 7.5, item 18 will be deleted in the RFP.
 - With respect to Section 7.5, item 11, yes, fill within the stream must be riprap, unless it is within a cofferdam.
- **5.** Page 2-26, Section 7.5.19: Is the 22 feet of fill into the stream measured from the MaineDOT surveyed bank lines provided in the RFP documents?
 - **A.** 22 feet is measured from the RUS line shown on the wetlands.dgn.
- **6.** Page 2-11 Section 3.1.12: Can the typical construction zone speed limit of 55 mph be reduced to 45 mph for short durations for construction activities such as lateral slides?
 - A. An additional 10 mph speed reduction in the construction zone for a duration not to exceed 72 hours is permissible with the following exceptions: no additional 10 mph reduction will be allowed from the July 4th holiday weekend through the Labor Day holiday weekend or during the Columbus Day weekend. The Final RFP will be revised accordingly.
- **7.** Page 2-23 Section 6.15.1.8: Does MaineDOT have design criteria requirements for the design of temporary structures/bridges for the interstate traffic? Is there a time limit on the temporary structures usage? If the temporary bridges/structures are left in-place over the winter, does the design low chord elevation change from Q10?
 - A. The requirements for temporary structures are provided in Section 510 of the Standard Specification. Per the MaineDOT Bridge Design Guide 2.3.9.2, Q10 is the minimum design discharge for temporary bridges. The seven months duration limit noted in Book 1 can be exceeded this will be clarified in the Final RFP.
- **8.** Page 2-12 Section 3.1.14: Can the Hampden rest area be used for state and contractor management office trailers?
 - A. No.
- **9.** Page 21 Section 6.11.1.25: Requires the piers on Cold Brook Road to be replaced in-kind in accordance with the existing plans. Should existing rebar between pile caps and columns be chipped around or replaced with new bars drilled and epoxy-anchored into pile cap?

- A. The intent of the project is to reuse the existing rebar extending out of the pile cap. Alternate designs can be proposed through the ATC submittal process. If an allowable ATC proposal is submitted that simply requests approval for something that is not considered equal or better to what is required in the Final RFP, it will not be approved. However, if such a request is accompanied with sufficient identification of other resulting benefits to MaineDOT, the travelling public, the permitting process, etc. that could offset the requested change as a whole, the ATC will be given due consideration.
- **10.** Page 2-7 Section 2.2: Can the design deliverables for the proposal/drawings be reduced since this is a Low-Bid Design-Build proposal (i.e. provide only what is necessary to show compliance)? If not, we will need more time to prepare the technical proposal since the requirements in Section 2.2 are extensive.
 - A. MaineDOT will review the Technical Proposal submittal requirements to see if the submittal size can be reduced. If so, the Final RFP will be updated accordingly.
- **11.**Page 2-19 Section 6.11.1.1: Is MaineDOT planning to perform laboratory testing (such as chloride and sulfate content, pH, electrical resistivity) to establish a baseline for determining whether the soils are mild, corrosive, or very corrosive? If no additional testing is planned by DOT, please define minimum requirement for corrosion loss rate per year.
 - A. Laboratory testing (chloride and sulfate content, pH, electrical resistivity) will be performed on organic deposits in the vicinity of the Souadabscook Stream West and East bridges. Results will be shared with the Proposers when available. Organic deposits and/or corrosive fill soils were not encountered at the locations of the borings drilled at the Souadabscook Stream Center bridges and Emerson Mills Road & CMQR bridges. Potential for corrosion at all steel pile foundation locations shall be evaluated based on laboratory test results in accordance with AASHTO LRFD Section 10.7.5 and if necessary, piles shall be protected from corrosion or designed for section loss.
- **12.** Page 2-25 Section 7.5: Who delineated the wetlands shown on the DOT plan set and when?
 - **A.** MaineDOT in 2016 and 2019.
- **13.** Page 2-25 Section 7.5: Were other wetland data collected (e.g. USACE data sheets)?
 - A. No.

- **14.** Page 2-25 Section 7.5: Does the RUS line on the draft plan set equate to the ordinary high water (OHW) line of the River?
 - A. Yes.
- **15.** Page 2-25 Section 7.5: Is MaineDOT planning supplemental field delineation during this proposal phase of the project? The provided delineation does not extend along the bridge approaches, and it is not clear if the Cold Brook Road Bridge was reviewed for wetlands.
 - A. Yes, MaineDOT will complete field delineation for the median from east of the Souadabscook Stream bridges to the Cold Brook Road Bridge, inclusive of the Cold Brook Road Bridge. At the bridges, MaineDOT assumed limits for replacement at each bridge (not in the median). If additional wetland information is required at the bridges outside the median, the Design-Builder is responsible.
- **16.** Page 2-25 Section 7.5: Does MaineDOT expect that adherence to in-stream construction conditions will avoid the need for an Essential Fish Habitat study for Atlantic salmon?
 - A. No, MaineDOT will prepare an Essential Fish Habitat (EFH) assessment and MaineDOT/FHWA will complete EFH consultation based on the requirements outlined in the Final RFP.
- **17.**Page 2-27 Section 7.6: If hazardous waste is discovered (particularly at Bridge #1430 and #5969), who is responsible for the cost of handling and disposal?
 - A. The Design-Builder is responsible for precautions to address worker health and safety in accordance with applicable regulations. Should unanticipated hazardous waste that requires handling and disposal is encountered, MaineDOT will be responsible.
- **18.** Page 2-16 Section 6.7.2: Do the noted mainline HMA and gravel depths extend over the shoulders, or is there a different requirement for shoulders?
 - **A.** Yes, the noted mainline HMA and gravel depths extend over the shoulders.
- **19.**Regarding the MaineDOT Responses to Questions dated May 31, 2019 Question 4, since the new piers for the Cold Brook Road bridge are not expected to meet the AASHTO LRFD Design Specifications, is there an expectation that the design and construction documents will be stamped by a Licensed Professional Engineer?

- A. The intent of the project is to replicate the details used in the original 1961 record bridge plans. MaineDOT is not requiring design and construction documents to be stamped by a Licensed Professional Engineer for in-kind pier replacements of Bridge 5970, Cold Brook Road over I-95. Alternate designs can be proposed through the ATC submittal process. If an ATC for Cold Brook Road is submitted and approved by MaineDOT, it will need to be designed by a Licensed Professional Engineer and submitted for review and acceptance.
- 20. Would the Department consider reducing the temporary lane and shoulder width requirements contained in Draft RFP Section 3.2.4 for the existing mainline interstate bridges in the interest of getting 3 lanes on 1 bridge (2 in one direction, 1 in the other with barrier separation) and maintaining the 4th lane on the opposite side of the interstate with a phased bridge construction approach without temporary bridges? Lanes would be reduced to eleven feet with nominal one or two foot shoulders within the bridge length only. The first proposed bridge constructed could be overbuilt in width to avoid the need for the lane/shoulder width reduction during MOT for the 2nd bridge construction.
 - A. Alternate methods for maintaining traffic during construction can be proposed through the ATC submittal process. If an allowable ATC proposal is submitted that simply requests approval for something that is not considered equal or better to what is required in the Final RFP, it will not be approved. However, if such a request is accompanied with sufficient identification of other resulting benefits to MaineDOT, the travelling public, the permitting process, etc. that could offset the requested change as a whole, the ATC will be given due consideration.
- 21. Some of the bridge survey below the bridges appears to be inaccurate relative to site visits, inspection photos, edge of channel survey, and grading shown on the existing plans. This affects the location of the EL. 120 contours, which serves as the limit of disturbance per the RFP requirement in Section 6.11.1.23. As this in turn will affect the overall length and cost of each bridge will the Department consider taking additional survey shots in these areas and reblend contours in order to more accurately determine the limits of disturbance? This is most notable at the north abutments for the Souadabscook West Bridges (1433 & 5951) and the north abutment at the NB Souadabscook East Bridge (5949) where the EL. 120 contour does not parallel the edge of surveyed stream bank at all.

If additional survey will be taken, we also request additional survey ground shots to the exterior sides of each bridge (at least enough to encompass the limits of wetland delineation) as there does not appear to be enough information to determine grading tie-in points currently. The NE and SE corners of the Souadabscook West Bridges (1433 & 5951) and the NE and NW corners of SB Souadabscook Center (1432) and East Bridge (1431) are noted areas.

- **A.** MaineDOT will review the survey for accuracy. Additional survey has been requested and will be shared with the Proposers when it is available.
- **22.** Section 6.11.1.22 notes large animal passage <u>could</u> be accommodated with a four foot (4') wide shelf on both sides of the stream at EL. 122.
 - Are wildlife shelves required on both sides of Souadabscook Stream?
 - Are there elevation requirements or limitations for the shelf? If so, please identify.
 - Are there vertical or horizontal dimensional limitations or restrictions for the wildlife shelf? If so, please identify.
 - A. The current RFP requirements reflect the technical assistance from USFWS received to date that allows less than 1.2 x bankfull width structure sizing and channel geometry to avoid reconstructing the in-water portions of the existing riprap slopes. MaineDOT will be consulting based on these requirements.

For this approach, the Design-Builder shall provide the following at a minimum: one 4-foot wide wildlife shelf on the west side of Bridges 1433 and 5951 and one 4-foot wide wildlife shelf on the east side of Bridges 1432, 5950, 1431, and 5949; the shelf shall be at approximate elevation 122; and shall have a maximum slope of 5:1.

Should the Design-Builder present a proposal that requires reconstruction of the existing riprap slopes or requires substantial new construction of permanent in-water slope stabilization, the Design-Builder shall size the structure and channel geometry to provide a 1.2 x bankfull width structure with wildlife passage and shall submit a Habitat Connectivity Design report to support the design.

The Final RFP will be updated accordingly.

Sincerely,

Leanne R. Timberlake, P.E. Senior Project Manager